

Auroras.—The auroral displays, although not noticeably brilliant, have occurred more frequently during this than during the preceding month. The following are cited as the most interesting: Those of the 1st, 3d, 6th and 15th, at New London; 6th, 15th and 21st, at Keokuk; 3d, 13th, 20th and 21st, at Wood's Hole; 3d at Alpena, Escanaba and Cornish, Me., very brilliant; an auroral arch was visible at Auburn, New Hampshire, and Woodstock, Vt., on the 21st.

OPTICAL PHENOMENA.

Solar Halos.—The only days on which solar halos have not been reported at some one of the regular stations, during the month, are the 3d, 4th, 7th, 8th, 14th, 21st, 28th and 29th. Those most extensively observed were reported on the 5th at New London, Alto Vista, Va., Andover, Mass., Standish, Me., Florida, Mass., Auburn, N. H., Contoocookville, N. H., Cornish, Me. On the 10th at Ephrata, Penn., Standish, Me., and Cornish, Me. On the 15th at Point Pleasant, La., and Newburyport, Mass. On the 18th at Tioga, Pa., Point Pleasant, La., and Milton, Mass., (parhelio.) and Wilsonville, Ala. On the 19th at Jacksonville, Tenn., Afton, Iowa, and Hennepin, Iowa.

Lunar Halos.—These have been unusually numerous during the latter portion of the month; those occurring on the 16th, 17th, 18th, 19th, 20th, 22d and 23d, were extensively observed, and are of especial interest when considered in connection with the storm of the 19th and 20th.

Mirage.—Observed on Lake Superior, near Duluth, on the 15th.

MISCELLANEOUS PHENOMENA.

Meteors were observed on the 5th at Andover, Mass., and Afton, Iowa. On the 8th at Williamsport, Penn., Fall River, Mass., Woodstock, Vt., Corning, Mo., and Council Bluffs, Iowa. On the 12th at Milford, Del., Fort Madison, Iowa, Fort Wayne, Indiana, (brilliant,) and Woodstock, Vt. December 2d at Shreveport, La., (brilliant, exploding with blue and yellow light.)

Fires.—Prairie fires were reported to the west of and near to North Platte station on the 3d and 8th, burning towards the north. Forest fires on the 12th, east of Shreveport.

Earthquakes.—Distinct shocks occurred at 10.15 P. M. on the 10th on Long Island, in Westchester and Rockland counties, along the Palisades and Hudson river, N. Y., and in New Jersey. Also on the 12th, between 10 and 11 P. M., a slight shock of earthquake was felt at Garrisons, New York; also at Guadeloupe W. I., at 11.50 A. M., on the 8th

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